**REMARKS**

Claims 1-3 and 6-11 are pending in the present application.


PRIOR ART REJECTIONS


A. Claims 1, 2, 6, 7, 10 and 11


Claims 1, 2, 6, 7, 10 and 11are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,421,462 (Christian). This rejection is traversed.


This rejection is substantially similar to the rejection of claims 1, 2, 6, 7 and 10 under 35 U.S.C. § 102(e) set forth in previous office action dated July 20, 2006. In response to Applicant's arguments presented in the Amendment filed on November 20, 2006, the Examiner, relying on col. 8, lines 6-14, asserts that Christian takes a only single image 1/30 seconds after an initial shutter operation. As submitted previously by Applicant, the images taken in Christian include a video sequence of ordered frames 35 comprising a <u>plurality of frames</u> <u>34</u> that can be produced at a rate of 30 frames per second (see Fig. 2 and column 8, lines 11-14). The video sequence of ordered frames 35 are input to the image processing system 16 (see Fig. 1 and column 8, lines 22-24). Applicant submits that this video sequence is not "only a single image," as recited in claims 1 and 10. The Examiner seems to believe that the first frame recorded in Christian is "only a single image." As presented above, in Christian,

a plurality of frames are taken. Further Applicant submits that Christian does not teach or suggest that "only a single image is taken before said second predetermined time is measured," as recited by independent claims 1, 10 and 11.

Also, the Examiner asserts that the imaging system of Christiansen "must require an initial shutter operation command from a user" (see paragraph (1) on page 3 of the final office action). The Examiner seems to be asserting that the "manually pressed" shutter button is <u>inherent</u> in Christian. In order for a feature to be inherent in a reference, that reference must <u>necessarily perform</u> according the way of that feature. That is, the reference <u>must</u> function the way of that feature, with no <u>alternative ways</u> to accomplish the function of that feature. It appears that the system of Christian could function <u>without</u> having a manual shutter. In systems such as the one disclosed by Christian, an electrical switch, such as a shutter or trigger, generally is installed <u>not</u> on the camera side, but on the image processing side, and the camera is controlled by the switch.

In addition, the Examiner asserts "the claims do not necessarily require a 'background image is updated when only a single source image is taken'" (see paragraph (2) on page 3 of the final office action). Applicant has amended the independent claims to recite that the single image taken when the first period of time is measured is the first image (i.e., background image). Applicant submits that this feature is not taught or suggested by Christian.

Christian is directed to track a person through a succession of <u>video</u>

images. The Examiner seems to believe that the taking of video images every

1/30 second to form a sequence 35 of frames 34 (see Fig. 2 and column 8, lines

11-14) meets the features of claim 1 of taking an first image after a first

predetermined time and a second image after a second predetermined time.

Applicant submits that the present invention device of taking single still frame

images is substantially different than the device of Christian that deals with

video images.


In Christian, there is no teaching or suggestion to take <u>single images</u> at

predetermined times after a shutter button is manually pressed. Rather, as

shown in Fig. 2 of Christian, the images taken include a video sequence of

ordered frames 35 comprising a plurality of frames 34 that can be produced at

a rate of 30 frames per second (see Fig. 2 and column 8, lines 11-14). The video

sequence of ordered frames 35 are input to the image processing system 16 (see

Fig. 1 and column 8, lines 22-24). The Examiner also relies on column 8, lines

55-67 of Christian. This section of Christian discloses that when a prescribed

period of time elapses, a background image is updated with an image obtained

by averaging a plurality of source images (e.g., the last ten captured source

images). In Christian, this technique is referred to as "time-averaged

background image updating scheme or scenario." Christian is silent with

respect to the claimed scheme in which a background image is updated when

only a single source image is taken.

A significant advantage of the present invention is that the vibration in the camera caused by the depression of the shutter button. Christian, merely discloses that whenever a prescribed period of time has elapsed, a first image is updated with an image of a region other than that of an object of a second image obtained by averaging plurality of images of the first image. Christian fails to teach or suggest the significant features of the present invention, as presented above.

Applicant submits that it would not have been obvious to modify Christian to include a manually pressed shutter button and to output only single images at a first and second predetermined time because there is no motivation to do so. As presented above, Christian is directed to track a person through a succession of <u>video</u> images (see column 8, lines 37-40). As shown in Fig. 2, the image takes the form of a <u>video</u> sequence of ordered frames 35 comprising a plurality of frames 34 that can be produced at a rate of 30 frames per second (see Fig. 2 and column 8, lines 11-14). The video sequence of ordered frames 35 are input to the image processing system 16 (see Fig. 1 and column 8, lines 22-24). Therefore, there is no use for taking single images after predetermined times after a shutter button is pressed. Christian is directed to a completely different device than that of the present invention, in which single images are used. There is no teaching or suggestion in Christian to output only single images at a first and second predetermined time, and in fact this would amount to a significant alteration of Christian. Thus, such a modification of Christian would be the result of hindsight gleamed from the present invention,

which is not allowed. Accordingly, the present invention would not have been obvious over Christian.

Accordingly, the present invention is not anticipated by Christian. Thus, the rejection of claims 1, 2, 6, 7, 10 and 11 under 35 U.S.C. § 102(e) is improper and should be withdrawn.

B. Claim 8

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Christian in view of U.S. Patent 5,267,333 (Aono). This rejection is traversed.

Aono fails to make up for the above-noted deficiencies of Christian. Therefore, because the combination of Christian and Aono does not form the invention defined by claim 8, the rejection of claim 8 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

C. Claim 3

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Christian in view of U.S. Patent 5,914,748 (Parulski). This rejection is traversed.

Parulski fails to make up for the above-noted deficiencies of Christian. Therefore, because the combination of Christian and Parulski does not form the invention defined by claim 3, the rejection of claim 3 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Also, Applicant submits that it would not have been obvious to combine the mentioned feature of Parulski with Christian because there is no motivation to do so. The Examiner asserts that it would have been obvious to modify Christian to take an image including a background only and an image including the background and an object separately and automatically after a shutter button is pressed, as allegedly taught by Parulski, in order to allow the photographer to not intervene in the apparatus during the capture sessions. However, as mentioned above, Christian is directed to track a person through a succession of video images. Therefore, there is no use for taking images at predetermined times after a shutter button is pressed. Therefore, one skilled in the art would not have combined this alleged feature of Parulski with the device of Christian. Thus, the Examiner's relied on motivation for this combination is flawed. Therefore, the Examiner's combination of Parulski with Christian is the result of hindsight gleaned from review of the present invention, which is not proper. Accordingly, the present invention would not have been obvious over Christian in view of Parulski. Thus, the rejection of claim 3 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

D. Claim 9

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Christian and Parulski in further view Aono. This rejection is traversed.

Aono fails to make up for the above-noted deficiencies of Christian and Parulski. Therefore, because the combination of Christian Parulski and Aono does not form the invention defined by claim 9, the rejection of claim 9 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

## [[I. FORMAL MATTERS

Claim 8 is rejected under 35 U.S.C. § 112, second paragraph. Applicant submits that the amendments to claim 8 presented above address and resolve the Examiner's noted comments. The similar amendment has been made to claim 2 herein.

## II. PRIOR ART REJECTIONS

A. Claims 1-3 and 6, 7 and 10

Claims 1-3 and 6, 7 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahmad (U.S. Patent 6,532,022) in view of Parulski (U.S. Patent 5,914,748). This rejection is traversed.

This rejection is substantially similar to the rejection of claims 1-3 and 6, 7 and 10 set forth in the office action dated March 9, 2005. Further, the Examiner asserts that Applicant's arguments presented in the Amendment filed on June 9, 2005 are not persuasive. Applicant has amended independent claims 1 and 10 herein to recite that <u>only a single image</u> is input after a predetermined amount of time, as shown above. Applicant submits that this feature is not taught or suggested by Ahmad and Parulski.

As discussed in the Amendment filed on June 9, 2005, in Ahmad, once a shutter button has been pressed, a <u>plurality of images</u> for a background are repeatedly input. Specifically, Ahmad teaches to perform a set number of iterations to create the background image until certain criteria are met before taking the second image (see Figs. 3A and 3B, col. 6, line 48 – col. 7, line 47). Ahmad teaches to use an iterative process to first create a background image by averaging several frames of a background image. After the number of iterations reaches the desired number of iterations N, the system computes the tolerance for each pixel (see boxes 308, 310 and 312 in Fig. 3A) and captures a frame of an input image. When there are no more pixels in the average image, the process captures a frame of an input image containing a background image and the object (see box 314). Therefore, in Ahmad, once a shutter button has been pressed, a plurality of images for a background are repeatedly input. In the present invention, after a shutter button has been pressed, when a predetermined amount of time elapses, a single image for a background is input. This effectively limits the adverse effects caused by hand movement.

Parulski fails to make up for this deficiency of Ahmad. Therefore, because the combination of Ahmad and Parulski does not form the invention defined by claims 1 and 10, on which claims 2, 3, 6 and 7 depend, the rejection of claims 1-3, 6, 7 and 10 under 35 U.S.C. § 103(a) is overcome (see MPEP 2143.03).

Also, because Ahmad teaches to input a plurality of images for a background once a shutter button has been pressed, Ahmad teaches away from the claimed invention, in which only a single image is input after a predetermined amount of time.

Therefore, Applicant submits that the rejection of claims 1-3, 6, 7 and 10 under 35 U.S.C. § 103(a) is overcome. Thus, Applicant respectfully submits that the rejection should be withdrawn.

B. Claims 8 and 9

Claims 8 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahmad in view of Parulski and further in view of U.S. Patent 5,267,333 (Aono). This rejection is traversed.

Aono fails to make up for the above-noted deficiencies of Ahmad and Parulski. Therefore, because the combination of Ahmad, Parulski and Aono

does not form the invention defined by claims 8 and 9 the rejection of claims 8

and 9 under 35 U.S.C. § 103(a) is overcome and should be withdrawn (see

MPEP 2143.03).  Also, as presented above with respect to the rejection of claims

1-3, 6, 7 and 10, Ahmad teaches away from the claimed invention.]]

Based on the foregoing, Applicant submits that the present application is

in condition for allowance and allowance is respectfully solicited.  If the

Examiner believes that any of the outstanding issues could be resolved by a

telephone conference, Applicant respectfully requests the Examiner to contact

the undersigned at the telephone number listed below.

Applicant believes that no additional fees are due for the subject

application.  However, if for any reason a fee is required, a fee paid is

inadequate or credit is owed for any excess fee paid, you are hereby authorized

and requested to charge Deposit Account No. 04-1105.

Respectfully Submitted,

/John J. Penny, Jr./

Date: June 28, 2007
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